AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of claims:

1. (**previously presented**) A method for preparing an electrically conductive polymeric material, comprising

a) contacting a polymeric material with a viologen salt to form a pre-doped composition, wherein said polymeric material is capable of exhibiting electrical conductivity upon oxidative doping; and

b) irradiating the pre-doped composition with electromagnetic radiation, thus producing an electrically conductive polymeric material.

2. (**original**) The method according to claim 1, wherein the electromagnetic radiation is of one or more UV or near UV wavelengths.

3. (**original**) The method according to claim 1 or 2, wherein the viologen salt is deposited on a suitable substrate.

4. (**previously presented**) The method according to claim 3, wherein the viologen salt is grafted onto a suitable substrate utilizing a heat and/or UV-induced treatment to form a viologen

salt-bearing substrate.

5. (**previously presented**) The method according to claim 3, wherein the viologen salt is formed in situ in contact with the polymeric material.

6. (**previously presented**) The method according to claim 3, wherein a surface of the viologen salt-bearing substrate is partially or completely coated with the polymeric material.

7. (**previously presented**) The method according to claim 1 wherein the polymeric material is contacted with the viologen salt by mixing the polymeric material and the viologen salt prior to forming a coating or film of the mixture.

8. (**previously presented**) The method according to claim 1 wherein a coating of the polymeric material is deposited on a suitable substrate to form a polymer-coated substrate.

9. (**previously presented**) The method according to claim 8, wherein the viologen salt is deposited on the polymer-coated substrate to form a substrate coated with polymer and viologen salt.

10. (**original**) The method according to claim 1, wherein a mixture of viologen salts is used.

11. (**previously presented**) The method according to claim 1 wherein at least one of the 1,1'-substituents of the viologen salt are independently selected from an alkyl group or a benzyl group.

12. (**original**) The method according to claim 1 wherein the viologen salt is a polymeric viologen salt.

13. (**previously presented**) The method according to claim 12, wherein the viologen salt moiety is present in the backbone of the polymeric viologen salt.

14. (**previously presented**) The method according to claim 12, wherein the viologen salt moiety is present as a side chain of the polymeric viologen salt.

15. (**original**) The method according to claim 1, wherein the viologen salt is a viologen dihalide.

16. (**original**) The method according to claim 13, wherein the viologen salt is a viologen dihalide.

17. (**original**) The method according to claim 1 or 2 wherein the polymeric material is polyaniline, a polyaniline derivative, polypyrrole, a polypyrrole derivative or a mixture of at least two compounds selected from the group consisting of a polyaniline, a polyaniline derivative, a polypyrrole and a polypyrrole derivative.

18. (**original**) The method according to claim 1 wherein the resistance of the polymeric material is reduced by approximately 3 to 6 orders of magnitude within a period of 3 hours or less.

19. (**original**) The method according to claim 1, wherein the method is conducted at a temperature of 0°C to approximately 80°C in the presence of air and in the absence of any solvent.

20-33. (**canceled**)

34. (**previously presented**) The method according to claim 9 wherein the substrate coated with polymer and viologen salt is formed by a method comprising:

a) providing a low density polyethylene film substrate; a solution of aniline or pyrrole; ammonium persulfate; a vinyl alkyl halide or vinyl benzyl halide; an alkyl halide; and 4,4'-bipyridine;

b) immersing the polyethylene film substrate into the solution of aniline or pyrrole and ammonium persulfate for a period sufficient to form a polymeric coating on the substrate;

c) contacting the coated substrate with the vinyl alkyl halide or vinyl benzyl halide;

d) subjecting the mixture to UV or near UV irradiation for a time sufficient to form a vinyl alkyl halide or vinyl benzyl halide grafted substrate; and

e) forming the viologen on the vinyl alkyl halide or vinyl benzyl halide grafted substrate via reaction with 4,4′ bipyridine and an alkyl halide.

35. (**previously presented**) A method according to claim 4 wherein the viologen-salt bearing substrate is made by a method comprising:

i) providing a vinyl alkyl halide grafted low density polyethylene film substrate;

an alkyl halide; and

4,4′-bipyridine;

ii) contacting the grafted film substrate with the 4,4′-bipyridine for a time sufficient to permit reaction therebetween forming a modified grafted film substrate;

iii) subsequently contacting the modified grafted film substrate with the alkyl halide for a time sufficient to permit the formation of a viologen-salt grafted film.

36. (**previously presented**) A method for preparing an electrically conductive polymeric material comprising:

a) providing a vinyl benzyl halide grafted film substrate;

b) reacting the vinyl benzyl halide grafted film with an equimolar mixture of 4,4' bipyridine and p-xylene dihalide to form a viologen salt-grafted film;

c) coating the viologen salt-grafted film with polyaniline to form a polyaniline-coated film; and

d) exposing the polyaniline-coated film to near-ultraviolet radiation to obtain an electrically conductive polymer.

37. (**previously presented**) The method of claim 1, in which the viologen salt is formed *in situ* on a substrate and then contacted with the polymeric material.

38. (**canceled**)

39. (**new**) A method for preparing an electrically conductive polymeric material comprising:

a) contacting a polymeric material with a viologen salt to form a pre-doped composition, wherein said polymeric material is capable of exhibiting electrical conductivity upon oxidative doping, by forming the viologen salt *in situ* on a substrate to obtain a viologen-salt coated substrate and then forming the polymeric material *in situ* on the viologen-salt coated substrate; and

b) irradiating the pre-doped composition with electromagnetic radiation, thus producing an electrically conductive polymeric material.

40. (**new**) The method of claim 1, in which no acid or organic solvent is added for the reaction between the viologen and the polymeric material.